CLAIMS

What is claimed is:

1. A method for processing data in a multithreaded application in a data processing system, the method comprising:

placing work items into a data structure that is maintained in the data processing system, wherein the work items are pending processing by the multithreaded application;

processing work items from the data structure by a plurality of threads within the multithreaded application in accordance with a first algorithm;

processing work items from the data structure by a thread within the multithreaded application in accordance with a second algorithm that differs from the first algorithm, wherein the thread is configured distinctly from the plurality of threads.

2. The method of claim 1 wherein the data structure is a queue, and wherein the first algorithm is a first-in first-out (FIFO) algorithm.

3. The method of claim 1 further comprising:

running the plurality of threads on a continuing basis; and

running the thread on a periodic basis.

4. The method of claim 1 wherein the step of processing work items from the data structure by the thread in accordance with a second algorithm further comprises:

examining a work item by the thread for a characteristic as controlled by a first set of parameters; and

in response to a determination of whether or not the work item has a characteristic indicated by the first set of parameters, processing or not processing the work item by the thread, respectively.

5. The method of claim 4 further comprising:

indicating an authentication credential characteristic in the first set of parameters.

6. The method of claim 4 further comprising:

indicating a system administration characteristic in the first set of parameters.

7. The method of claim 1 further comprising:

restricting the processing of work items by the thread in accordance with a second set of parameters.

8. The method of claim 7 wherein the step of restricting the processing of work items by the thread in accordance with a second set of parameters further comprises:

evaluating workflow conditions of the plurality of threads for a characteristic as controlled by the second set of parameters; and

in response to a determination of whether or not the workflow conditions of the plurality of threads has a characteristic indicated by the second set of parameters, processing or not processing work items by the thread, respectively.

9. The method of claim 8 further comprising:

reevaluating workflow conditions of the plurality of threads for a characteristic as controlled by the second set of parameters in response to processing a work item by the thread; and

in response to a determination of whether or not the workflow conditions of the plurality of threads has a characteristic indicated by the second set of parameters, processing or not processing work items by the thread, respectively.

10. The method of claim 9 further comprising:

adjusting one or more parameters in the second set of parameters in accordance with a third set of parameters in response to a determination that workflow conditions do not have a characteristic indicated by the second set of parameters.

11. The method of claim 10 wherein the step of adjusting one or more parameters in the second set of parameters in accordance with a third set of parameters further comprises:

comparing a number of work items in the data structure that have been examined by the thread with a threshold value indicated by a parameter in the third set of parameters; and

determining whether or not to adjust one or more parameters in the second set of parameters based on an outcome of the comparison of the number of work items examined by the thread with the indicated threshold value.

12. The method of claim 8 further comprising:

selecting one or more characteristics of the workflow conditions to be evaluated as indicated by a parameter in the second set of parameters.

13. The method of claim 12 further comprising:

indicating, by the parameter, one or more characteristics from the group consisting of: a number of work items in the data structure; a time period since a work item in the data structure has been processed by the plurality of threads; the number of work items and the time period; or the number of work items or the time period.

14. The method of claim 7 further comprising:

comparing a number of work items in the data structure with a threshold value indicated by a parameter in the second set of parameters; and

determining whether or not to process work items by the thread based on an outcome of the comparison of the number of work items in the data structure with the indicated threshold value.

15. The method of claim 7 further comprising:

comparing a time period since a work item in the data structure has been processed by the plurality of threads with a threshold value indicated by a parameter in the second set of parameters; and

determining whether or not to process work items by the thread based on an outcome of the comparison of the time period with the indicated threshold value.

16. A computer program product on a computer readable medium for use in a data processing system for processing data in a multithreaded application, the computer program product comprising:

means for placing work items into a data structure that is maintained in the data processing system, wherein the work items are pending processing by the multithreaded application;

means for processing work items from the data structure by a plurality of threads within the multithreaded application in accordance with a first algorithm; and

means for processing work items from the data structure by a thread within the multithreaded application in accordance with a second algorithm that differs from the first algorithm, wherein the thread is configured distinctly from the plurality of threads.

17. The computer program product of claim 16 wherein the data structure is a queue, and wherein the first algorithm is a first-in first-out (FIFO) algorithm.

18. The computer program product of claim 16 further comprising:

means for running the plurality of threads on a continuing basis; and

means for running the thread on a periodic basis.

19. The computer program product of claim 16 wherein the means for processing work items from the data structure by the thread in accordance with a second algorithm further comprises:

means for examining a work item by the thread for a characteristic as controlled by a first set of parameters; and

means for processing or not processing the work item by the thread, respectively, in response to a determination of whether or not the work item has a characteristic indicated by the first set of parameters.

20. The computer program product of claim 19 further comprising:

means for indicating an authentication credential characteristic in the first set of parameters.

21. The computer program product of claim 19 further comprising:

means for indicating a system administration characteristic in the first set of parameters.

22. The computer program product of claim 16 further comprising:

means for restricting the processing of work items by the thread in accordance with a second set of parameters.

23. The computer program product of claim 22 wherein the means for restricting the processing of work items by the thread in accordance with a second set of parameters further comprises:

means for evaluating workflow conditions of the plurality of threads for a characteristic as controlled by the second set of parameters; and

means for processing or not processing work items by the thread, respectively, in response to a determination of whether or not the workflow conditions of the plurality of threads has a characteristic indicated by the second set of parameters.

24. The computer program product of claim 23 further comprising:

means for reevaluating workflow conditions of the plurality of threads for a characteristic as controlled by the second set of parameters in response to processing a work item by the thread; and

means for processing or not processing work items by the thread, respectively, in response to a determination of whether or not the workflow conditions of the plurality of threads has a characteristic indicated by the second set of parameters.

25. The computer program product of claim 24 further comprising:

means for adjusting one or more parameters in the second set of parameters in accordance with a third set of parameters in response to a determination that workflow conditions do not have a characteristic indicated by the second set of parameters.

26. The computer program product of claim 25 wherein the means for adjusting one or more parameters in the second set of parameters in accordance with a third set of parameters further comprises:

means for comparing a number of work items in the data structure that have been examined by the thread with a threshold value indicated by a parameter in the third set of parameters; and

means for determining whether or not to adjust one or more parameters in the second set of parameters based on an outcome of the comparison of the number of work items examined by the thread with the indicated threshold value.

27. The computer program product of claim 23 further comprising:

means for selecting one or more characteristics of the workflow conditions to be evaluated as indicated by a parameter in the second set of parameters.

28. The computer program product of claim 27 further comprising:

means for indicating, by the parameter, one or more characteristics from the group consisting of: a number of work items in the data structure; a time period since a work item in the data structure has been processed by the plurality of threads; the number of work items and the time period; or the number of work items or the time period.

29. The computer program product of claim 22 further comprising:

means for comparing a number of work items in the data structure with a threshold value indicated by a parameter in the second set of parameters; and

means for determining whether or not to process work items by the thread based on an outcome of the comparison of the number of work items in the data structure with the indicated threshold value.

30. The computer program product of claim 22 further comprising:

means for comparing a time period since a work item in the data structure has been processed by the plurality of threads with a threshold value indicated by a parameter in the second set of parameters; and

means for determining whether or not to process work items by the thread based on an outcome of the comparison of the time period with the indicated threshold value.

31. An apparatus for processing data, the apparatus comprising:

means for placing work items into a data structure that is maintained in the data processing system, wherein the work items are pending processing by the multithreaded application;

means for processing work items from the data structure by a plurality of threads within the multithreaded application in accordance with a first algorithm; and

means for processing work items from the data structure by a thread within the multithreaded application in accordance with a second algorithm that differs from the first algorithm, wherein the thread is configured distinctly from the plurality of threads.